| L Number | Hits | Search :   | DB        | Time stamp       |
|----------|------|--|-----------|------------------|
| 1        | 2    | (DES or "data encryption standard") adj0 "ss"              | USPAT;    | 2004/02/25 16:45 |
|          |      | , , ,  | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | IBM_TDB   |                  |
| ,        | 0    | (713/191-193.ccls. or 380/42.ccls.) and ((DES or "data     | USPAT;    | 2004/02/25 16:47 |
| 2        | U    | (/13/191-193.0015. 01 300/42.0015.) and ((DES 01 data      | 1         | 2004/02/23 10.47 |
|          |      | encryption standard") adj0 "ss")                           | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      | -<br>-   | IBM_TDB   |                  |
| 3        | . 2  | (713/191-193.ccls. or 380/42.ccls.) and ((DES or "data     | USPAT;    | 2004/02/25 16:47 |
|          |      | encryption standard") adj0 "ss") or "DES-SS"               | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | IBM_TDB   |                  |
| _        | 650  | 713/191-193.ccls.  | USPAT;    | 2003/07/25 08:50 |
| -        | 030  | 1 10/19 1-190.0019.  | US-PGPUB; | 2000/0//20 00/00 |
|          |      | •  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | 1         |                  |
|          |      |  | IBM_TDB   |                  |
| -        | 26   | 713/191-193.ccls. and product with encryption              | USPAT;    | 2003/07/25 09:33 |
|          |      |  | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | IBM TDB   |                  |
| _        | 32   | 713/191-193.ccls. and product with (encryption or encoding | USPAT;    | 2003/07/25 09:35 |
|          | 32   | or encipher\$)   | US-PGPUB; |                  |
|          |      | or endipricity   | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | IBM_TDB   |                  |
|          | 0.4  | 740/404 400l. and an death with Consequence or amonding    |           | 2003/07/25 09:36 |
| -        | 31   | 713/191-193.ccls. and product with (encryption or encoding | USPAT;    | 2003/07/25 09.30 |
|          |      | or cipher\$)   | US-PGPUB; |                  |
| Į        |      |  | EPO; JPO; |                  |
|          |      | ·  | DERWENT;  |                  |
|          |      |  | IBM_TDB   |                  |
| -        | 222  | 713/191-193.ccls. and "data encryption"                    | USPAT;    | 2003/07/25 09:37 |
|          |      |  | US-PGPUB; |                  |
|          |      | ud ,   | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | IBM_TDB   | 1                |
| _        | 125  | 713/191-193.ccls. and "data encryption standard"           | USPAT;    | 2003/07/25 09:37 |
|          | 120  | 7 107 10 1 100.0010. dila data oliolyprioli dialidala      | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  |           |                  |
| 1        |      | 740/404 400 and III-t                                      | IBM_TDB   | 2002/07/25 00:50 |
| -        | 15   | 713/191-193.ccls. and "data encryption standard" and       | USPAT;    | 2003/07/25 09:50 |
|          |      | substitution   | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | IBM_TDB   |                  |
| _        | 0    | "modular encryption" and "data encryption standard" and    | USPAT;    | 2003/07/25 09:50 |
|          |      | substitution   | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  |           |                  |
|          | _    |  | IBM_TDB   | 2002/07/20 45:06 |
| -        | 1    | "modular encryption" and "data encryption standard"        | USPAT;    | 2003/07/28 15:06 |
|          |      |  | US-PGPUB; |                  |
|          |      |  | EPO; JPO; |                  |
|          |      |  | DERWENT;  |                  |
|          |      |  | IBM_TDB   |                  |

| -                | 2       | "des-ss"   | USPAT;                | 2003/07/29 15:43 |
|------------------|---------|--|-----------------------|------------------|
| 1                |         |  | US-PGPUB;             |                  |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  | 0       | III.data autatitutianii and iidata anammian atandardii | IBM_TDB               | 2003/07/28 11:23 |
| -                | 9       | "data substitution" and "data encryption standard"     | USPAT;<br>US-PGPUB;   | 2003/07/20 11.23 |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  |         |  | IBM_TDB               |                  |
| _                | 214     | 380/42.ccls.   | USPAT;                | 2003/07/25 10:18 |
|                  | ,       |  | US-PGPUB;             |                  |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  |         |  | IBM_TDB               |                  |
| -                | 59      | 380/42.ccls. and des                                   | USPAT;                | 2003/07/25 11:31 |
|                  |         |  | US-PGPUB;             |                  |
|                  |         | <del>.</del>   | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  | 455     | Retakah anad didantan akan sa Nasibi atah a            | IBM_TDB               | 2002/07/00 44:00 |
| -                | 125     | feistel and (block or stream) adj1 cipher              | USPAT;                | 2003/07/28 14:03 |
|                  |         |  | US-PGPUB;             |                  |
|                  |         |  | EPO; JPO;<br>DERWENT; |                  |
| [                |         |  | IBM_TDB               |                  |
| _                | 46      | "key schedule" and (block or stream) adj1 cipher       | USPAT;                | 2003/07/25 16:09 |
| -                | 40      | key schedule and (block of stream) adji cipher         | US-PGPUB;             | 2003/01/20 10:03 |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT:              |                  |
|                  |         |  | IBM_TDB               |                  |
| -                | 2       | des and identity adj0 conver\$                         | USPAT;                | 2003/07/25 16:11 |
|                  |         |  | US-PGPUB,             |                  |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  |         |  | IBM_TDB               |                  |
| -                | 1       | "data encryption standard" and identity adj0 conver\$  | USPAT;                | 2003/07/25 16:13 |
|                  |         |  | US-PGPUB;             |                  |
|                  |         |  | EPO; JPO;             |                  |
| ,                |         | ·  | DERWENT;<br>IBM_TDB   |                  |
|                  | 0       | "product cipher" and identity adj0 conver\$            | USPAT;                | 2003/07/25 16:14 |
| -                | U       | product cipiler and identity adjo convers              | US-PGPUB;             | 2003/01/23 10.14 |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  |         |  | IBM_TDB               |                  |
| -                | 2       | "cipher" and identity adj0 conver\$                    | USPAT;                | 2003/07/25 16:19 |
|                  | _       |  | US-PGPUB;             |                  |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  |         |  | IBM_TDB               |                  |
| -                | 8       | "cipher" and identity and "intermediate key"           | USPAT;                | 2003/07/25 16:23 |
|                  |         | · **   | US-PGPUB;             |                  |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              |                  |
|                  | 20      | anapartian and identify and lintermediate key!         | IBM_TDB<br>USPAT;     | 2003/07/25 16:27 |
| -                | 30      | encryption and identity and "intermediate key"         | US-PGPUB;             | 2003/01/23 10.2/ |
|                  |         |  | EPO; JPO;             |                  |
|                  |         |  | DERWENT;              | 1                |
|                  |         |  | IBM_TDB               |                  |
| _                | 2       | 5231662.pn.  | USPAT;                | 2003/07/25 16:32 |
|                  | •       |  | US-PGPUB;             |                  |
|                  |         |  | EPO; JPO;             |                  |
|                  | · ·     |  | DERWENT;              |                  |
|                  |         |  | IBM_TDB               |                  |
| On and the first | 0/05/04 | 5-20-45 PM Page 2                                      |                       | <u> </u>         |

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| -        | 13  | multi adjlode with (encrypt\$ or cipher\$ )              | USPAT;<br>US-PGPUB;              | 2003/07/28 15:16 |
|----------|-----|--|----------------------------------|------------------|
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          |                  |
| _        | 73  | seal.xa.   | USPAT;                           | 2003/07/25 16:55 |
|          |     |  | US-PGPUB;                        |                  |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          |                  |
| -        | 0   | seal.xa. and copper                                      | USPAT;                           | 2003/07/25 16:56 |
|          |     |  | US-PGPUB;                        |                  |
| `        |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          | 4   |  | IBM_TDB                          | 2002/07/25 46:50 |
| -        | 4   | seal.xa. and copper\$                                    | USPAT;                           | 2003/07/25 16:59 |
|          | •   |  | US-PGPUB;<br>EPO; JPO;           |                  |
|          |     | ···  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          |                  |
| <u> </u> | 271 | copper\$.in.   | USPAT;                           | 2003/07/25 16:59 |
| -        | 211 | oopporw.iii.   | US-PGPUB;                        |                  |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT:                         |                  |
|          |     |  | IBM_TDB                          |                  |
| _        | 52  | coppersmith.in.  | USPAT;                           | 2003/07/29 13:29 |
|          | -   |  | US-PGPUB;                        |                  |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          |                  |
| -        | 2   | 4157454.pn.  | USPAT;                           | 2003/07/28 10:54 |
| •        |     |  | US-PGPUB;                        |                  |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          | 0   | 5000540  | IBM_TDB                          | 2003/07/28 10:54 |
| -        | 2   | 5623548.pn.  | USPAT;<br>US-PGPUB;              | 2003/07/26 10.54 |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          | ٠   | '  | IBM_TDB                          |                  |
| <u> </u> | 2   | "data substitution table" and "data encryption standard" | USPAT;                           | 2003/07/28 11:25 |
| -        | _   | data substitution table and data shoryption standard     | US-PGPUB;                        |                  |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          |                  |
| -        | 0   | "data substitution table" and product adj0 cipher\$      | USPAT;                           | 2003/07/28 11:26 |
|          |     |  | US-PGPUB;                        |                  |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          | 0000/07/05 :: 55 |
| -        | 2   | "data substitution" and product adj0 cipher\$            | USPAT;                           | 2003/07/28 11:26 |
|          |     |  | US-PGPUB;                        |                  |
|          |     |  | EPO; JPO;                        |                  |
|          |     |  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          | 2002/07/29 14:05 |
| -        | 74  | nossen.in.   | USPAT;<br>US-PGPUB;              | 2003/07/28 14:05 |
|          |     |  | EPO; JPO;                        |                  |
| ]        |     |  | DERWENT;                         |                  |
|          |     |  | IBM_TDB                          |                  |
| _        | 3   | nossen.in. and 380/\$.ccls.                              | USPAT;                           | 2003/07/28 14:07 |
| -        | 3   | HOSSEH.III. AIIU OOV/4.CCIS.                             | US-PGPUB;                        | 2000/07/20 14.07 |
| [        |     |  |                                  |                  |
|          |     |  |                                  |                  |
|          |     |  | IBM_TDB                          |                  |
|          |     |  | EPO; JPO;<br>DERWENT;<br>IBM TDB |                  |

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| - | 2   | 5745577   | USPAT;<br>US-PGPUB;   | 2003/07/28 14:11 |
|---|-----|---|-----------------------|------------------|
|   |     |   | EPO; JPO;             |                  |
|   |     |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| - | 2   | 5727062.pn.   | USPAT;                | 2003/07/28 14:15 |
|   |     | ,   | US-PGPUB;             |                  |
|   |     |   | EPO; JPO;             |                  |
|   | 1   |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| - | 2   | 5995629.pn.   | USPAT;                | 2003/07/28 14:17 |
|   |     |   | US-PGPUB;             |                  |
|   |     |   | EPO; JPO;<br>DERWENT; |                  |
|   |     |   | IBM_TDB               |                  |
|   | 2   | 5724428.pn.   | USPAT;                | 2003/07/28 14:18 |
| - |     | - 57.24420.μπ.  | US-PGPUB;             | 2000/01/20 14:10 |
|   |     |   | EPO; JPO;             |                  |
| 1 | 1   |   | DERWENT:              |                  |
|   |     |   | IBM_TDB               |                  |
| - | 2   | 6185304.pn.   | USPAT;                | 2003/07/28 14:19 |
| 1 | _   | r · · · · · · · · · · · · · · · · · · ·                   | US-PGPUB;             |                  |
|   |     |   | EPO; JPO;             |                  |
|   |     |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| - | 13  | "pre encryption" and "data encryption standard"           | USPAT;                | 2003/07/28 15:22 |
|   |     |   | US-PGPUB;             |                  |
|   |     |   | EPO; JPO;             |                  |
|   |     |   | DERWENT;              |                  |
|   |     | world a did (annual on a cos) with (annual of or sinbort) | IBM_TDB               | 2003/07/28 15:32 |
| - | 3   | multi adj1 (round or pass) with (encrypt\$ or cipher\$ )  | USPAT;<br>US-PGPUB;   | 2003/07/26 15.32 |
|   |     |   | EPO; JPO;             |                  |
|   | 1   |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| _ | 34  | multi adj1 (round or pass) and "data encryption standard" | USPAT;                | 2003/07/28 15:34 |
|   |     | ,,  | US-PGPUB;             |                  |
|   |     |   | EPO; JPO;             |                  |
|   | 13  |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| - | 2   | 3962539.pn.   | USPAT;                | 2003/07/28 15:28 |
|   |     |   | US-PGPUB;             |                  |
|   |     |   | EPO; JPO;             |                  |
|   | ] [ |   | DERWENT;<br>IBM_TDB   |                  |
|   | 3   | multi adj1 section with (encrypt\$ or cipher\$ )          | USPAT;                | 2003/07/28 15:32 |
| - | )   | mula auj i section with (entrypto of ciphero )            | US-PGPUB:             | 2300,07,20 10.02 |
|   |     |   | EPO; JPO;             |                  |
|   | -   |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| - | 928 | (round or pass) and "data encryption standard"            | USPAT;                | 2003/07/28 16:45 |
|   |     |   | US-PGPUB;             |                  |
|   |     |   | EPO; JPO;             |                  |
|   |     |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| - | 2   | cascade\$ same "data encryption standard"                 | USPAT;                | 2003/07/28 16:47 |
|   | 1   |   | US-PGPUB;             |                  |
|   |     | ·   | EPO; JPO;             |                  |
| 1 |     |   | DERWENT;              |                  |
| 1 |     | accordes adit ciphers                                     | IBM_TDB<br>  USPAT;   | 2003/07/28 16:54 |
| - | 3   | cascade\$ adj1 cipher\$                                   | US-PGPUB;             | 2000/01/20 10.54 |
|   |     |   | EPO; JPO;             |                  |
|   |     |   | DERWENT;              |                  |
|   |     |   | IBM_TDB               |                  |
| 1 | .1  | I   | <u> </u>              |                  |

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| - | 9   | preproces adj1 \$crypt\$                                     | USPAT;    | 2003/07/28 17:33 |
|---|-----|--|-----------|------------------|
|   |     |  | US-PGPUB; |                  |
|   |     |  | EPO; JPO; |                  |
|   |     |  | DERWENT;  |                  |
|   |     |  | IBM_TDB   |                  |
| _ | 6   | cascad\$ adj1 \$crypt\$                                      | USPAT;    | 2003/07/29 09:04 |
|   |     | 7 7 7  | US-PGPUB; |                  |
|   |     |  | EPO; JPO; |                  |
|   |     |  | DERWENT;  |                  |
|   |     |  | IBM_TDB   |                  |
| _ | 497 | sequenc\$ adj1 \$crypt\$                                     | USPAT;    | 2003/07/28 17:33 |
|   | '0' |  | US-PGPUB; |                  |
|   |     |  | EPO; JPO; |                  |
| ĺ | 1   |  | DERWENT;  |                  |
|   | 1   |  | IBM_TDB   |                  |
| } | 26  | sequenc\$ adj1 \$crypt\$ same standard                       | USPAT;    | 2003/07/28 17:39 |
| - | 20  | Sequence auji aciypia same standard                          | US-PGPUB; | 2003/01/20 17:00 |
|   |     |  | EPO; JPO; |                  |
| • | 1 . |  | DERWENT;  |                  |
|   |     |  |           |                  |
|   |     |  | IBM_TDB   | 2003/07/29 13:13 |
| - | 4   | post adj1 \$crypt\$ same standard                            | USPAT;    | 2003/07/29 13.13 |
|   |     |  | US-PGPUB; |                  |
|   | ,   |  | EPO; JPO; |                  |
|   | 1   |  | DERWENT;  |                  |
|   | 4.5 |  | IBM_TDB   | 0000/07/00 47:40 |
| - | 45  | multiple adj1 \$crypt\$ same standard                        | USPAT;    | 2003/07/28 17:40 |
|   |     |  | US-PGPUB; |                  |
|   |     |  | EPO; JPO; |                  |
|   |     |  | DERWENT;  |                  |
|   |     |  | IBM_TDB   |                  |
| - | 54  | triple adj1 \$crypt\$  | USPAT;    | 2003/07/29 13:18 |
|   | 1   |  | US-PGPUB; |                  |
|   | 1   |  | EPO; JPO; |                  |
|   |     |  | DERWENT;  |                  |
|   |     |  | IBM_TDB   | 0000/07/00 40 40 |
| - | 8   | intermediate adj1 key adj1 generat\$ with (unit or device or | USPAT;    | 2003/07/29 13:19 |
|   |     | apparatus )  | US-PGPUB; |                  |
| İ |     |  | EPO; JPO; |                  |
|   | 1   | *  | DERWENT;  | 79               |
|   | 1   |  | IBM_TDB   |                  |
| - | 4   | coppersmith.in. and key adj1 generation                      | USPAT;    | 2003/07/29 13:30 |
|   |     |  | US-PGPUB; |                  |
| 1 |     |  | EPO; JPO; |                  |
|   |     |  | DERWENT;  |                  |
|   |     | ·  | IBM_TDB   |                  |
|   | 27  | "108701"   | USPAT;    | 2003/07/29 15:49 |
|   |     |  | US-PGPUB; |                  |
|   | ·   |  | EPO; JPO; |                  |
|   |     |  | DERWENT;  |                  |
|   |     |  | IBM_TDB   |                  |